U.S. MARKETS FOR ZINC DIE CASTING 1975-79

U.S. Zinc Die Casting Tonnage

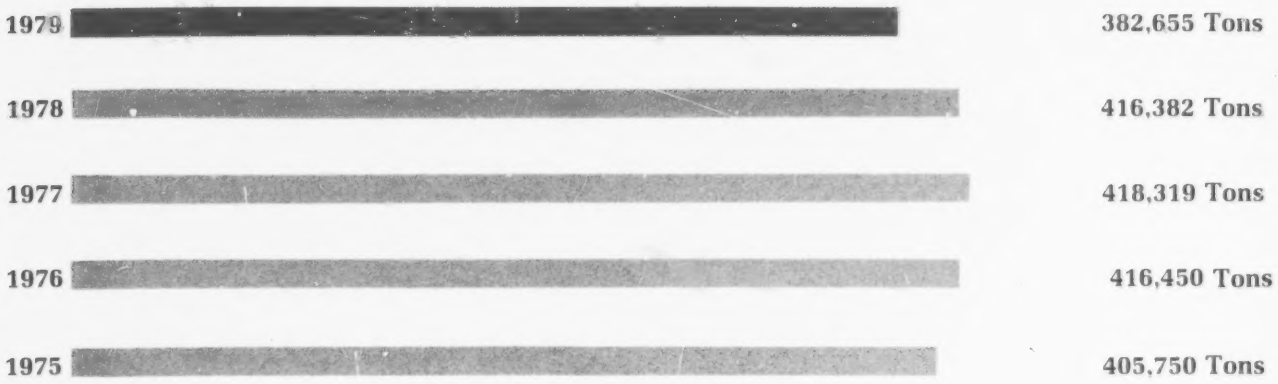


Table 1

Automotive Components	1979	165,761 Tons	43.3%
	1978	192,492 Tons	46.2%
	1977	205,801 Tons	49.3%
	1976	206,597 Tons	49.6%
	1975	213,974 Tons	52.7%
Builders Hardware	1979	84,543 Tons	22.1%
	1978	93,078 Tons	22.4%
	1977	93,539 Tons	22.4%
	1976	87,614 Tons	21.0%
	1975	79,075 Tons	19.5%
Electrical Components	1979	42,986 Tons	11.2%
	1978	43,384 Tons	10.4%
	1977	38,956 Tons	9.3%
	1976	36,956 Tons	8.9%
	1975	31,399 Tons	7.7%

Industrial, Agricultural and Commercial Machinery	1979	29,763 Tons	7.8%
	1978	26,230 Tons	6.3%
	1977	24,685 Tons	5.9%
	1976	23,753 Tons	5.7%
	1975	28,081 Tons	6.9%
Domestic Appliances	1979	27,051 Tons	7.1%
	1978	29,690 Tons	7.1%
	1977	22,694 Tons	5.4%
	1976	30,256 Tons	7.3%
	1975	25,526 Tons	6.3%
Miscellaneous Industries	1979	11,983 Tons	3.1%
	1978	11,009 Tons	2.6%
(Scale 2:1)	1977	10,160 Tons	2.4%
	1976	10,867 Tons	2.6%
	1975	8,984 Tons	2.2%
Sporting Goods and Toys	1979	10,037 Tons	2.6%
	1978	9,519 Tons	2.3%
(Scale 2:1)	1977	10,564 Tons	2.5%
	1976	9,849 Tons	2.4%
	1975	9,700 Tons	2.4%
Scientific and Professional Equipment	1979	6,201 Tons	1.6%
	1978	6,151 Tons	1.5%
	1977	5,901 Tons	1.4%
(Scale 2:1)	1976	5,377 Tons	1.3%
	1975	4,387 Tons	1.1%
Sound and Television Equipment	1979	4,331 Tons	1.2%
	1978	4,329 Tons	1.2%
	1977	6,019 Tons	1.4%
(Scale 2:1)	1976	5,181 Tons	1.2%
	1975	4,624 Tons	1.2%

U.S. Zinc Die Casters

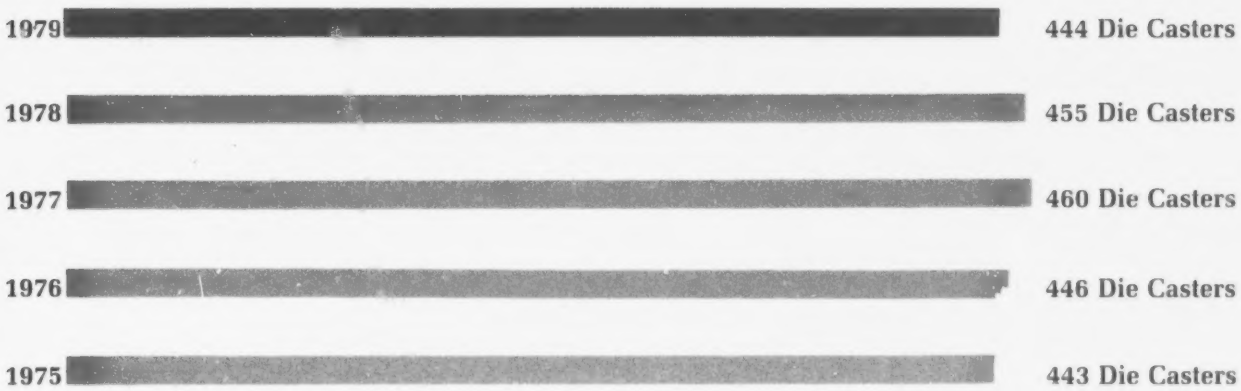
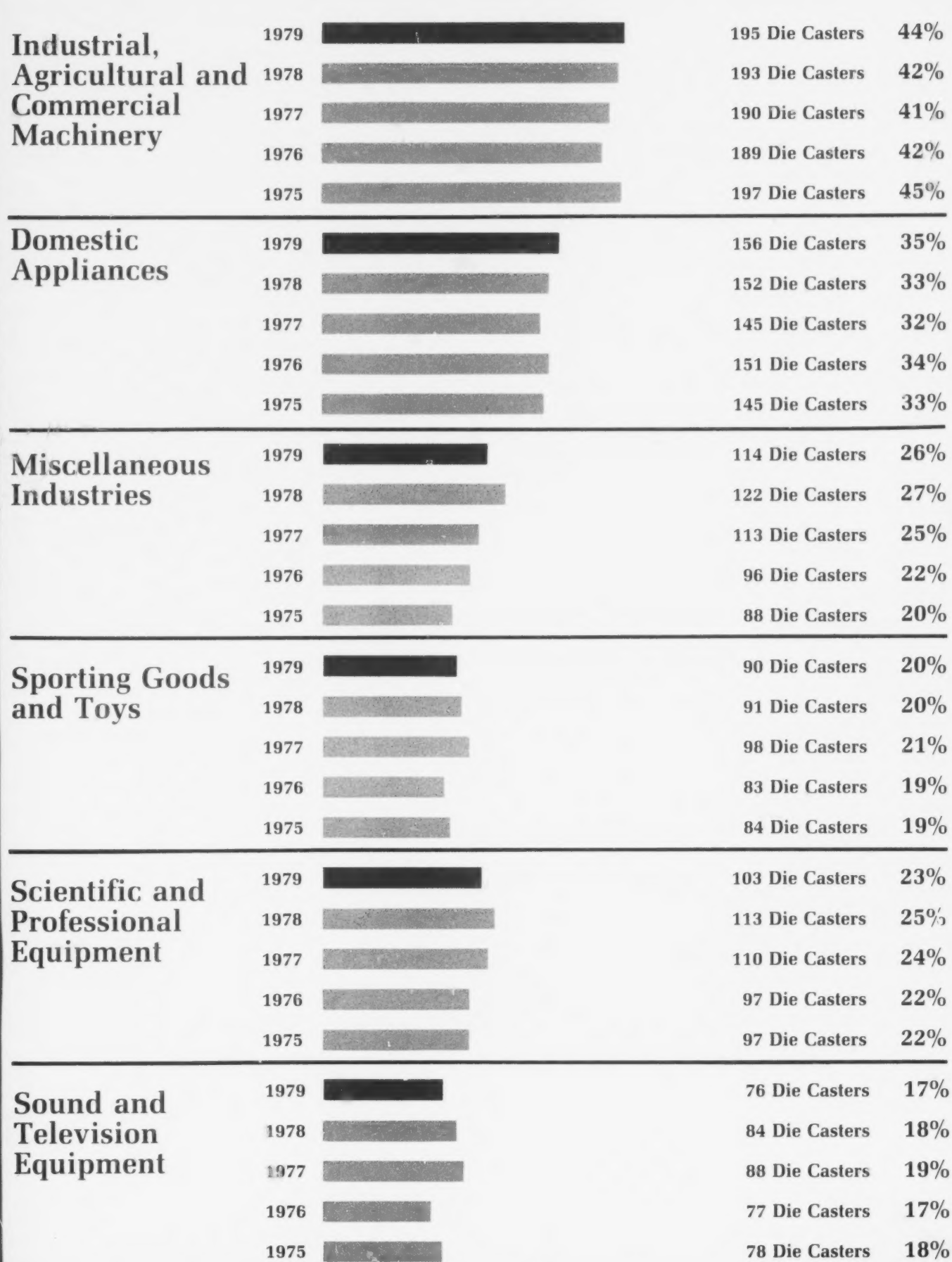


Table 2

Automotive Components	1979	200 Die Casters	45%
	1978	209 Die Casters	46%
	1977	203 Die Casters	44%
	1976	190 Die Casters	43%
	1975	195 Die Casters	44%
Builders Hardware	1979	253 Die Casters	57%
	1978	247 Die Casters	54%
	1977	250 Die Casters	54%
	1976	239 Die Casters	54%
	1975	240 Die Casters	54%
Electrical Components	1979	193 Die Casters	43%
	1978	188 Die Casters	41%
	1977	186 Die Casters	40%
	1976	178 Die Casters	40%
	1975	175 Die Casters	40%


Industrial, Agricultural and Commercial Machinery
1979 195 Die Casters 44%
1978 193 Die Casters 42%
1977 190 Die Casters 41%
1976 189 Die Casters 42%
1975 197 Die Casters 45%
Domestic Appliances
1979 156 Die Casters 35%
1978 152 Die Casters 33%
1977 145 Die Casters 32%
1976 151 Die Casters 34%
1975 145 Die Casters 33%
Miscellaneous Industries
1979 114 Die Casters 26%
1978 122 Die Casters 27%
1977 113 Die Casters 25%
1976 96 Die Casters 22%
1975 88 Die Casters 20%
Sporting Goods and Toys
1979 90 Die Casters 20%
1978 91 Die Casters 20%
1977 98 Die Casters 21%
1976 83 Die Casters 19%
1975 84 Die Casters 19%
Scientific and Professional Equipment
1979 103 Die Casters 23%
1978 113 Die Casters 25%
1977 110 Die Casters 24%
1976 97 Die Casters 22%
1975 97 Die Casters 22%
Sound and Television Equipment
1979 76 Die Casters 17%
1978 84 Die Casters 18%
1977 88 Die Casters 19%
1976 77 Die Casters 17%
1975 78 Die Casters 18%

U.S. Markets for Zinc Die Casting 1975-79

In this study Zinc Institute (ZI) publishes its sixth annual report on end uses of zinc die castings, analyzing the market breakdown for 1979. The figures used, as always, are not ZI's—they are provided by zinc die casters who voluntarily make this study possible.

The market breakdowns used herein are identical with those used in England and Canada, which permits comparative analysis of market strength and trends on a specific market by market basis.

During 1979 Zinc Institute learned of four new zinc die casting locations, as well as 13 that are no longer active. The number of total die casters has been adjusted accordingly to 444.

Of these companies, 442 either answered the Zinc Institute questionnaire or responded to personal or telephone follow-up. Tonnages for the two plants that did not release figures were estimated based on known production capacities. Their total tonnage amounts to less than .5% of the total.

No distinction is made in the ZI report between custom and captive die casting since this definition depends on shop and machine time available in any given period.

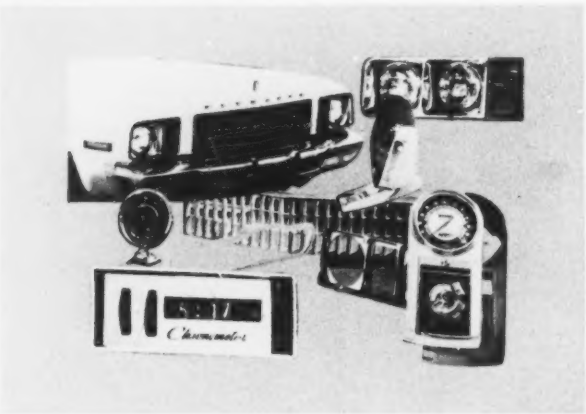
It is hoped that this report will continue annually to provide a better statistical marketing guide for zinc die casters and their major suppliers.

For this report, the 382,655 tons of zinc die castings shipped by casters in 1979 compares to the 344,715 tons reported as zinc base alloy use of slab zinc in the preliminary Bureau of Mines report for 1979. The Bureau's figure for 1979 includes an estimated 39,334 tons of zinc base alloy unreported to date. It has been felt that tonnage from non-reporting zinc alloy producers and users would add to the totals reported to the Bureau of Mines as consumed.

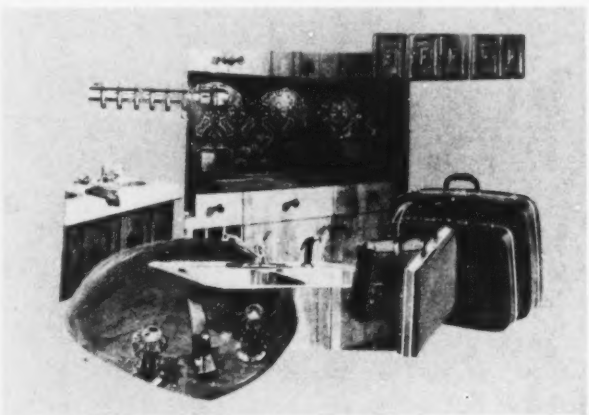
Zinc die casting's traditional number one die casting market, automotive, is again dominant. At 165,761 tons, it represents under 50% (43.3%) of the total 382,655 tons. Builders hardware retained second place, 84,543 tons, 22.1% of the market in 1979. Electrical components remained in third place with 42,986 tons or 11.2% of the market. Industrial, agricultural and commercial machinery scored a substantial gain from 26,230 tons in 1978 to 29,763 tons in 1979 moving it into fourth place with 7.8% of the market.

Complete figures in Tables 1 and 2 show zinc die casting tonnages and percentages, as well as the number and percentages of die casters in each of the nine major markets.

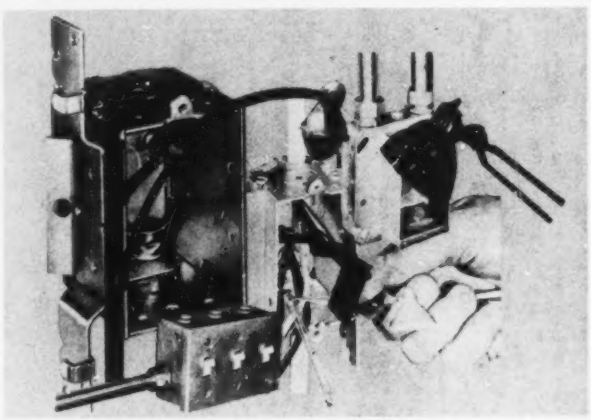
Automotive Components

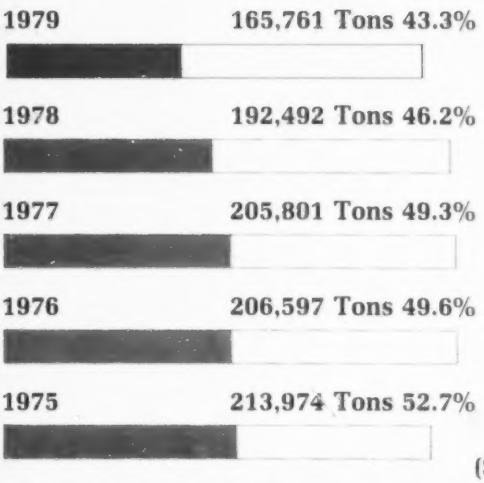


Builders Hardware



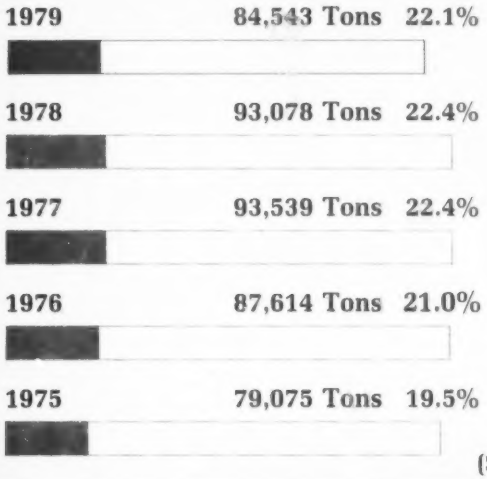
Electrical Components





Zinc die castings manufactured for the automotive market at 165,761 tons were 43.3% of total 1979 sales. This reflects significantly the drive of automotive producers to lighten cars. In addition, ThinWall zinc became an increasingly important factor with the introduction of 1980 models in the fall of 1979. This saved zinc applications, but also reduced tonnage. Die casters in this market were 200 in number, 45% of the total.

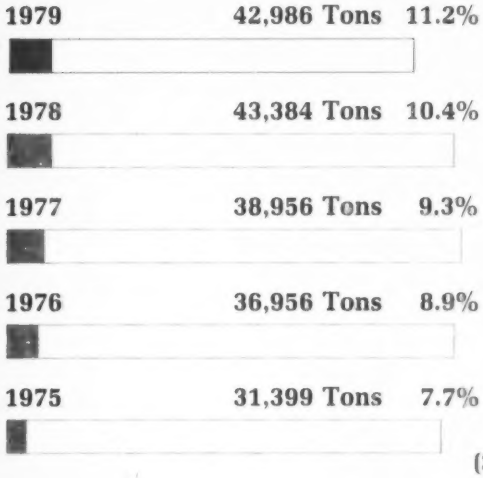
The market consists of handles and locks, mechanical components, electrical components, body hardware and trim, lamp and lighting fittings, instruments and other automotive components. Pounds of zinc die castings per average car, again reflecting the need for lighter weight, and ThinWall zinc, dropped from nearly 50 pounds per car in 1975 to 44.8 in 1976, 39.5 in 1977, 30 in 1978, 28 in 1979 and 26 on the 1980 models.



Builders hardware, second largest market for zinc at 84,543 tons, took 22.1% of the market. Die casters involved were 253, 57% of the total.

Due to the reduction in housing starts in 1979 versus 1978 this market has declined 8,535 tons from its 1978 level.

The market covered door and window hardware, locks and keys, furniture and cabinet hardware, hand tools and cutlery, bathroom and plumbing fittings, general hardware, marine hardware, and luggage hardware.

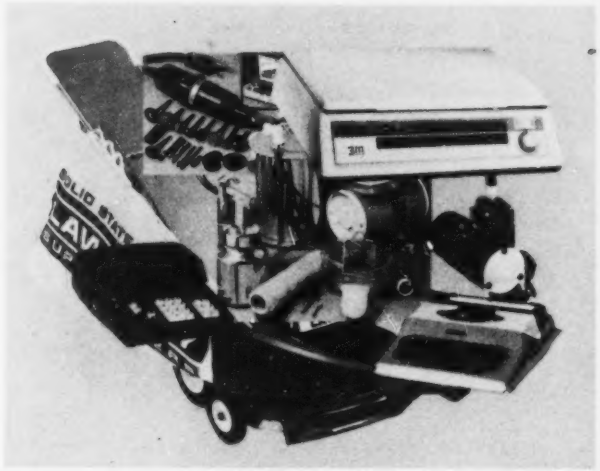


Electrical components reached 42,986 tons for 11.2% of the market and a clear hold on third place among zinc die cast markets, shared by 193 die casters, 43% of the producers.

The market includes conduit fittings, switches, plugs and sockets, telecommunication equipment, switch gear, pole-line hardware, motor components, lighting fixtures and equipment.

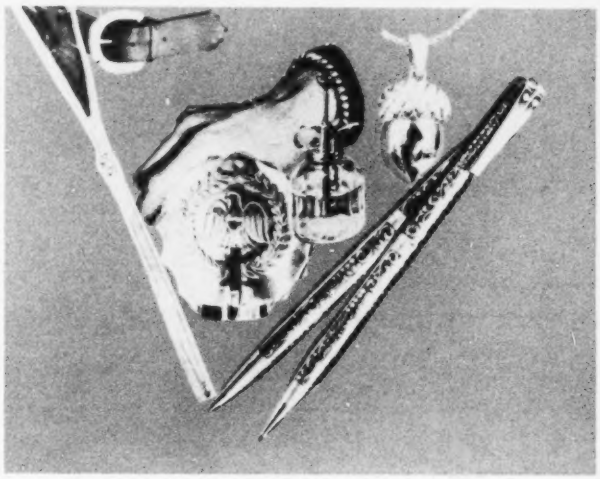
This market which is industrially oriented and more stable than consumer goods, is nevertheless strongly affected by construction, particularly in the residential housing field.

Industrial, Agricultural and Commercial Machinery



Domestic Appliances

Miscellaneous Industries



1979	29,763 Tons	7.8%
1978	26,230 Tons	6.3%
1977	24,685 Tons	5.9%
1976	23,753 Tons	5.7%
1975	28,081 Tons	6.9%

(Scale 1:2)

In 1979, the consumer-oriented markets, for the most part, seemed to continue at 1978 levels. Moving into fourth position from fifth, industrial, agricultural and commercial machinery accounted for 29,763 tons and 7.8% of the total. 195 die casters, 44%, were in this market.

This market includes copying equipment, office equipment, business machines, agricultural and food machinery, vending machines, machine tools, power tools, central heating and air conditioning, power-operated garden equipment, lawn mowers, snow blowers and gasoline service station equipment.

1979	27,051 Tons	7.1%
1978	29,690 Tons	7.1%
1977	22,694 Tons	5.4%
1976	30,256 Tons	7.3%
1975	25,526 Tons	6.3%

(Scale 1:2)

This market at 27,051 tons, 7.1%, moved to fifth place from fourth place in 1978 due to reduced consumer demand and housing starts. The number of die casters, 156, or 35%, did not change significantly.

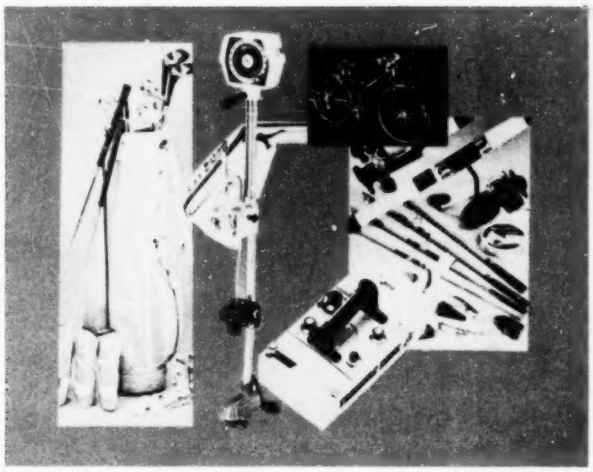
The market includes vacuum cleaners, floor polishers, refrigerators and freezers, ranges, washing machines and dryers, dishwashers, small appliances, heating appliances, room air conditioners, fans and sewing-machine components.

1979	11,983 Tons	3.1%
1978	11,009 Tons	2.6%
1977	10,160 Tons	2.4%
1976	10,867 Tons	2.6%
1975	8,984 Tons	2.2%

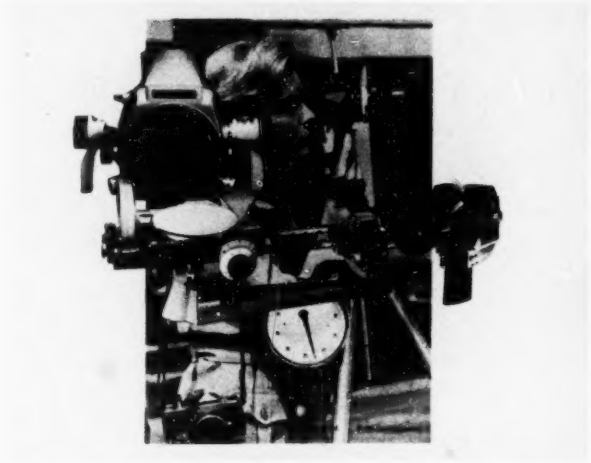
(Scale 2:1)

Markets named by relatively few die casters were arbitrarily grouped here and accounted in 1979 for 11,983 tons or 3.1% of the total. A total of 114 die casters, 26% of them, reported in this category which sold to markets such as tableware, jewelry and ornaments, fancy goods and souvenirs, zippers, buttons and buckles. This was zinc's sixth largest market for 1979.

Sporting Goods and Toys

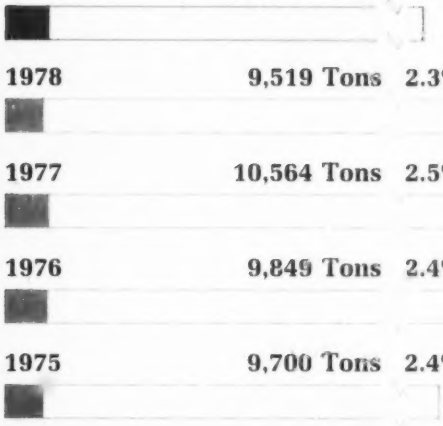


Scientific and Professional Equipment



Sound and Television Equipment

1979	10,037 Tons	2.6%
1978	9,519 Tons	2.3%
1977	10,564 Tons	2.5%
1976	9,849 Tons	2.4%
1975	9,700 Tons	2.4%

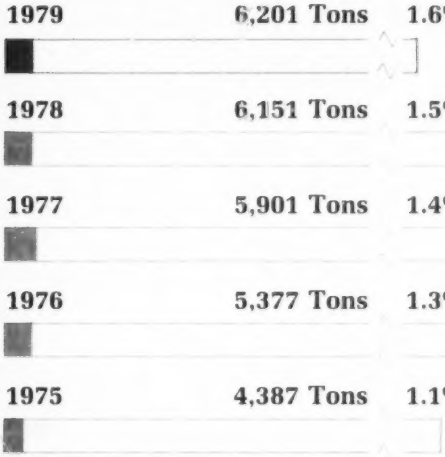


(Scale 2:1)

Zinc's die casting production was 10,037 tons, or 2.6% of the total market, remaining in seventh place. Ninety die casters, or 20%, participated. These figures were up from 1978.

The market consists of toys, musical instructments, and sports goods.

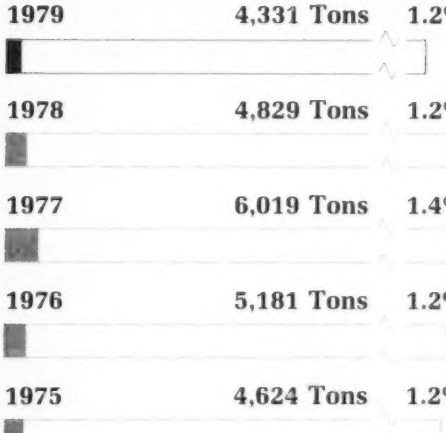
1979	6,201 Tons	1.6%
1978	6,151 Tons	1.5%
1977	5,901 Tons	1.4%
1976	5,377 Tons	1.3%
1975	4,387 Tons	1.1%



(Scale 2:1)

This market nosedived to 4,387 tons in 1975, but has continued to come back to 6,201 tons, 1.6%, in 1979. A total of 103 die casters, 23% of the market sold to makers of valves, scientific instruments, timing devices, cameras and projectors and optical instruments. This was zinc's eighth largest market for 1979.

1979	4,331 Tons	1.2%
1978	4,829 Tons	1.2%
1977	6,019 Tons	1.4%
1976	5,181 Tons	1.2%
1975	4,624 Tons	1.2%



(Scale 2:1)

With 4,331 tons and 1.2% of the market, these consumer-oriented products dropped in 1979. Seventy-six die casters, 17%, were involved in this market area. It consists of assemblies and parts for radio, television, record and tape players. This was zinc's ninth largest market for 1979.

This decline can probably be attributed to increased foreign imports.